

E SCIENCE SKILL Using Math to Solve Problems

Newton's second law can be shown with an equation. The equation is $F = m \times a$. In this equation, the F stands for *force* (measured in newtons), the m stands for *mass*, and the a stands for *acceleration*. To use the equation, multiply the mass by the acceleration.

Using Math to Solve Problems

✓ Many problems about speed, acceleration, and velocity use numbers. You can use math to solve these problems.

1. What is the force if the acceleration is 3 m/s/s and the mass is 7 kg?

2. What is the force if the acceleration is 9 m/s/s and the mass is 6 kg?

3. What is the force if the acceleration is 5 m/s/s and the mass is 4 kg?

4. What is the force if the acceleration is 6 m/s/s and the mass is 8 kg?

F NEWTON'S THIRD LAW**Pairwork**

With a partner, think of a situation that shows Newton's third law in action. Write sentences to describe the situation.

Example: Rodrigo is sitting in an office chair on wheels. He pushes against the wall. The chair rolls away from the wall.

G WRITING Applying Information

Martin is walking through his room. His foot accidentally hits a toy car on the floor. What happens to the car? Why? Use Newton's first law to explain. Write a paragraph.

Applying Information

✓ Use information for a particular reason.
